

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P475179

Luminaire Tested: **22CZ2-24VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475179
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1995.9 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

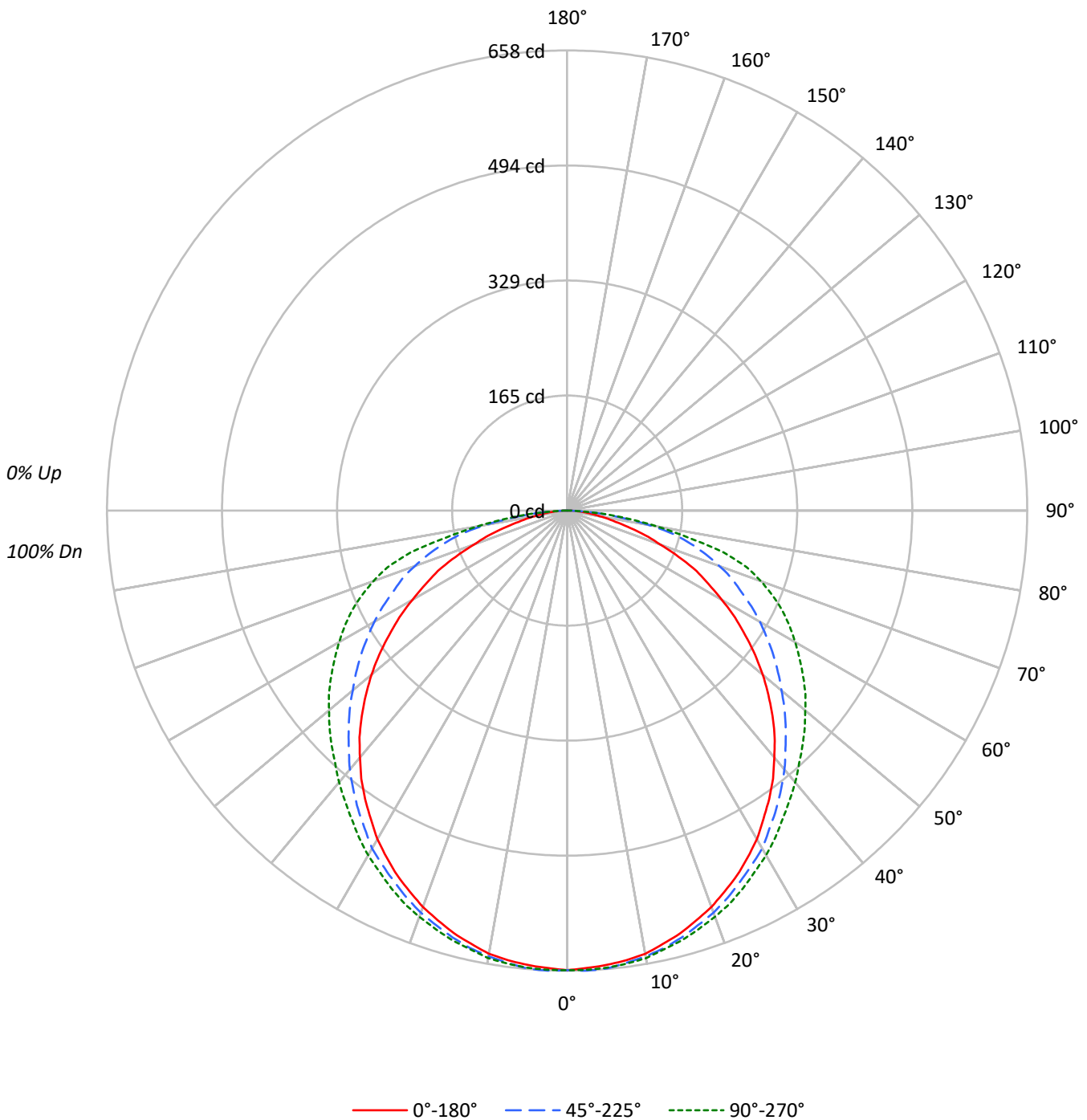
Input Watts (W): 16.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1769	1769	1769
5°	1762	1775	1772
10°	1758	1768	1775
15°	1743	1761	1771
20°	1727	1752	1770
25°	1708	1738	1768
30°	1686	1733	1768
35°	1654	1713	1766
40°	1619	1698	1782
45°	1581	1682	1811
50°	1528	1676	1860
55°	1459	1689	1932
60°	1376	1714	2026
65°	1299	1748	2165
70°	1109	1823	2318
75°	930	1899	2409
80°	762	1833	2010
85°	658	1359	1476



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	3.1
10°-20°	178.2	8.9
20°-30°	270.0	13.5
30°-40°	326.1	16.3
40°-50°	342.6	17.2
50°-60°	322.4	16.2
60°-70°	268.8	13.5
70°-80°	178.1	8.9
80°-90°	47.5	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	510.5	25.6
0°-40°	836.6	41.9
0°-60°	1501.5	75.2
0°-90°	1995.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1995.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	652	653	657	657	656	62
15°	626	628	632	635	636	176
25°	575	579	585	593	596	265
35°	504	509	521	533	538	315
45°	416	422	442	464	476	320
55°	311	325	360	397	412	278
65°	204	222	274	320	340	198
75°	89	125	183	220	232	97
85°	21	33	44	48	48	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	657.2	657.2	657.2	657.2	657.2
2.5°	654.7	656.0	658.5	658.5	657.2
5°	652.2	653.4	657.2	657.2	656.0
7.5°	648.4	649.7	652.2	654.7	653.4
10°	643.4	644.6	647.2	649.7	649.7
12.5°	634.6	635.8	640.8	642.2	642.2
15°	625.7	628.3	632.0	634.6	635.8
17.5°	614.5	616.9	621.9	627.0	627.0
20°	603.1	605.6	611.9	616.9	618.1
22.5°	589.2	593.0	599.3	605.6	608.1
25°	575.4	579.2	585.4	593.0	595.6
27.5°	559.0	562.8	571.7	580.4	581.7
30°	542.6	546.4	557.7	565.3	569.1
32.5°	522.5	527.5	538.8	550.2	554.0
35°	503.6	508.7	521.3	532.6	537.6
37.5°	483.5	488.5	502.4	516.3	522.5
40°	460.8	467.1	483.5	498.6	507.4
42.5°	439.4	445.8	462.1	482.2	491.0
45°	415.5	421.7	442.0	464.5	475.9
47.5°	390.3	397.8	421.7	449.5	460.8
50°	365.1	373.9	400.4	431.9	444.4
52.5°	338.7	350.0	380.2	414.3	429.3
55°	311.0	324.9	360.1	396.6	411.7
57.5°	284.5	297.2	338.7	377.7	394.0
60°	255.6	271.9	318.5	358.8	376.5
62.5°	227.9	245.6	297.2	340.0	358.8
65°	204.0	221.5	274.5	319.7	340.0
67.5°	172.5	196.4	255.6	298.4	318.5
70°	141.0	173.7	231.7	275.7	294.6
72.5°	117.1	148.6	207.8	251.8	269.5
75°	89.4	124.7	182.6	220.3	231.7
77.5°	66.7	103.2	156.2	175.1	176.3
80°	49.2	79.3	118.3	124.7	129.7
82.5°	34.0	55.4	76.9	84.3	86.9
85°	21.3	32.7	44.0	47.8	47.8
87.5°	11.3	12.6	15.1	15.1	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)